

## CLAIMS

1. An encryption code management system for use in a plurality of communication systems composed of a plurality of data processors that exchange data  
5 encrypted with specific encryption codes,

wherein there is provided an electronic apparatus including:

a code management reception portion that receives the encryption codes of the data processors;

a code management control portion that compares a plurality of the encryption 10 codes received by the code management reception portion; and

a result output portion that outputs a comparison result yielded by the code management control portion, and

wherein the data processors include a code management transmission portion that transmits the encryption codes of the data processors themselves to the electronic 15 apparatus.

2. The encryption code management system of claim 1, wherein the data processors include an encryption portion that encrypts a signal transmitted from the code management transmission portion to the electronic apparatus.

20

3. The encryption code management system of claim 2, wherein the electronic apparatus includes a decryption portion that decrypts the signal received by the code management reception portion from the data processors.

4. The encryption code management system of claim 2, wherein an encryption key to be used to encrypt the encryption codes is transmitted from a side that receives the encryption codes and the comparison result.

5 5. The encryption code management system of claim 4, wherein the encryption key used for encryption in the data processors is transmitted along with a code request signal transmitted by the electronic apparatus to request the data processors to transmit the encryption codes.

10 6. The encryption code management system of claim 2, wherein an encryption key having been used to encrypt the encryption codes is transmitted, along with the encryption codes and the comparison result, from a side that transmits the encryption codes.

7. The encryption code management system of claim 1,

15 wherein the electronic apparatus includes a code storage portion that stores one or a plurality of the encryption codes received, and  
wherein the electronic apparatus

first receives, via the code management reception portion, the encryption codes from the data processors and then stores the received encryption codes in  
20 the code storage portion,

then receives, via the code management reception portion, the encryption codes from the data processors other than those corresponding to the encryption codes stored in the code storage portion, and

then compares, in the code management control portion, the encryption codes

received by the code management reception portion with the encryption codes stored in the code storage portion to search for coincidence, and then yields a search result as the comparison result.

5        8.      The encryption code management system of claim 7, wherein, when the electronic apparatus recognizes that a predetermined period of time has passed after the encryption codes were stored in the code storage portion, the electronic apparatus erases the encryption codes from the code storage portion.

10       9.      The encryption code management system of claim 7, wherein, when the electronic apparatus recognizes that coincidence with the encryption codes stored in the code storage portion has been found more than a predetermined number of times, the electronic apparatus erases the encryption codes from the code storage portion.

15       10.     The encryption code management system of claim 7, wherein the electronic apparatus includes an erasure operation portion that erases from the code storage portion the encryption codes stored therein.

20       11.     The encryption code management system of claim 7,  
wherein the electronic apparatus includes, one for each of the data processors with  
which the electronic apparatus has communicated, registration keys with which to  
register identification codes by which the data processors are identified, and  
wherein the electronic apparatus stores in the code storage portion the encryption  
codes along with the identification codes registered with the registration keys.

12. The encryption code management system of claim 11, wherein, in the result output portion of the electronic apparatus or the data processors, the communication systems composed of a plurality of the data processors among which the encryption codes are  
5 coincident are indicated by displaying the identification codes thereof to indicate groups to which the plurality of data processors belong.

13. The encryption code management system of claim 11, wherein the identification codes are installation positions and types of the data processors.

10

14. The encryption code management system of claim 11, wherein the identification codes are device names of the data processors.

15

15. The encryption code management system of claim 1,  
wherein the electronic apparatus includes a code storage portion that stores a plurality  
of the encryption codes received, and  
wherein the electronic apparatus

20

first receives, via the code management reception portion, the encryption codes  
of the plurality of the data processors and then stores the received  
encryption codes in the code storage portion, and  
then compares, in the code management control portion, all the encryption  
codes stored in the code storage portion to confirm, as the comparison  
result, communication connection relationships between the data  
processors among which the encryption codes are coincident.

16. The encryption code management system of claim 15,

wherein the electronic apparatus

first receives, via the code management reception portion, the encryption codes

5 from the data processors other than those corresponding to the plurality of

the encryption codes stored in the code storage portion, and

then compares, in the code management control portion, the encryption codes

received by the code management reception portion with the plurality of

the encryption codes stored in the code storage portion to search for

10 coincidence, and then yields a search result as the comparison result.

17. The encryption code management system of claim 1, wherein, in the result

output portion of the data processors or the electronic apparatus, a plurality of the data

processors among which the encryption codes are coincident and that thus build one

15 communication system are displayed as one group.

18. The encryption code management system of claim 1 wherein, when the

encryption codes are exchanged, the encryption codes are exchanged along with device names

of the data processors with which the encryption codes are associated.

20

19. The encryption code management system of claim 1, wherein the electronic apparatus is a remote control unit for operating the data processors.

20. The encryption code management system of claim 1, wherein the data

exchanged between the data processors is AV data.

21. An encryption code management system for use in a plurality of communication systems composed of a plurality of data processors that exchange data  
5 encrypted with specific encryption codes,

wherein there is provided an electronic apparatus including:

a code management reception portion that receives the encryption codes of the  
data processors;

a code management control portion that compares a plurality of the encryption  
10 codes received by the code management reception portion; and

a code management transmission portion that transmits a comparison result  
yielded by the code management control portion to the data processors, and

wherein the data processors include:

a code management transmission portion that transmits the encryption codes of  
15 the data processors themselves to the electronic apparatus;

a code management reception portion that receives the comparison result from  
the electronic apparatus; and

a result output portion that outputs the comparison result received by the code  
management reception portion.

20

22. The encryption code management system of claim 21,

wherein the data processors include:

an encryption portion that encrypts a signal to be transmitted from the code  
management transmission portion to the electronic apparatus; and

a decryption portion that decrypts a signal having received by the code management reception portion from the electronic apparatus, and  
wherein the electronic apparatus includes:

an encryption portion that encrypts a signal to be transmitted from the code  
5 management transmission portion to the data processors; and  
a decryption portion that decrypts a signal having received by the code  
management reception portion from the data processors.

23. The encryption code management system of claim 22, wherein an encryption  
10 key to be used to encrypt the encryption codes is transmitted from a side that receives the  
encryption codes and the comparison result.

24. The encryption code management system of claim 23, wherein the encryption  
key used for encryption in the data processors is transmitted along with a code request signal  
15 transmitted by the electronic apparatus to request the data processors to transmit the  
encryption codes.

25. The encryption code management system of claim 22, wherein an encryption  
key having been used to encrypt the encryption codes is transmitted, along with the  
20 encryption codes and the comparison result, from a side that transmits the encryption codes.

26. An encryption code management system for use in a plurality of  
communication systems composed of a plurality of data processors that exchange data  
encrypted with specific encryption codes,

wherein there is provided an electronic apparatus including:

a code management reception portion that receives the encryption codes of the  
data processors;

a code storage portion that stores one or a plurality of the encryption codes  
received by the code management reception portion; and

a code management transmission portion that transmits the encryption codes  
stored in the code storage portion to the data processors, and

wherein the data processors include:

a code management transmission portion that transmits the encryption codes of  
the data processors themselves to the electronic apparatus;

a code management reception portion that receives the encryption codes  
transmitted from the electronic apparatus;

a code management control portion that compares the encryption codes  
received by the code management reception portion with the encryption  
codes of the data processors themselves; and

a result output portion that outputs a comparison result yielded by the code  
management control portion.

27. The encryption code management system of claim 26, wherein, when the  
20 electronic apparatus recognizes that a predetermined period of time has passed after the  
encryption codes were stored in the code storage portion, the electronic apparatus erases the  
encryption codes from the code storage portion.

28. The encryption code management system of claim 26, wherein, when the

electronic apparatus recognizes that coincidence with the encryption codes stored in the code storage portion has been found more than a predetermined number of times, the electronic apparatus erases the encryption codes from the code storage portion.

5        29. The encryption code management system of claim 26, wherein the electronic apparatus includes an erasure operation portion that erases from the code storage portion the encryption codes stored therein.

10      30. The encryption code management system of claim 26, wherein, in the result output portion of the data processors or the electronic apparatus, a plurality of the data processors among which the encryption codes are coincident and that thus build one communication system are displayed as one group.

15      31. The encryption code management system of claim 26,  
wherein the electronic apparatus includes, one for each of the data processors with  
which the electronic apparatus has communicated, registration keys with which to  
register identification codes by which the data processors are identified, and  
wherein the electronic apparatus stores in the code storage portion the encryption  
codes along with the identification codes registered with the registration keys.

20

32. The encryption code management system of claim 31, wherein, in the result output portion of the electronic apparatus or the data processors, the communication systems composed of a plurality of the data processors among which the encryption codes are coincident are indicated by displaying the identification codes thereof to indicate groups to

which the plurality of data processors belong.

33. The encryption code management system of claim 31, wherein the identification codes are installation positions and types of the data processors.

5

34. The encryption code management system of claim 31, wherein the identification codes are device names of the data processors.

35. The encryption code management system of claim 26 wherein, when the  
10 encryption codes are exchanged, the encryption codes are exchanged along with device names  
of the data processors with which the encryption codes are associated.

36. The encryption code management system of claim 26, wherein the electronic apparatus is a remote control unit for operating the data processors.

15

37. The encryption code management system of claim 26, wherein the data exchanged between the data processors is AV data.

38. A data processor used as one of data processors that build a communication  
20 system employing the encryption code management system of one of claims 1 to 37.

39. An electronic apparatus used in the encryption code management system of one of claims 1 to 37.